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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,751

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Franz-Josef Koerber

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EXAMINER

LUO, DAVID S

ART UNIT

PAPER NUMBER

2837

NOTIFICATION DATE

DELIVERY MODE

12/06/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com  
offserv@bipc.com

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/568,751	KOERBER, FRANZ-JOSEF	
	<b>Examiner</b>	<b>Art Unit</b>	
	DAVID S. LUO	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-14, 17-19, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 7-8, 15-16, 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. In view of the appeal brief filed on 09/20/2010, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below

:/Walter Benson/

Supervisory Patent Examiner, Art Unit 2837

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***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4, 6, 11, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4,131,776 to Ehrengerger.

As to claim 1, Ehrengerger teaches an apparatus for actuating an electrical switching device high-voltage power breaker (Ehrengerger fig. 1: “5 – circuit breaker”) having at least one moving contact piece (Ehrengerger fig. 1: “6 – operator”), the at least one moving contact piece being driven via a rotating shaft that rotates about a first axis (Ehrengerger fig. 1: “1 – shaft”), wherein an electric motor (Ehrengerger fig. 1: “22 – electric motor”) having a rotating drive shaft that rotates about a second axis (Ehrengerger fig. 1: “23 – drive shaft”), which can be coupled to the rotating shaft for the switching device by means of a gear mechanism (Ehrengerger fig. 1: “24 – drive gear” is coupled to the spur gear 21 to rotate the double helix drive shaft 1), is provided for the purpose of driving the rotating shaft to switch the switching device high-voltage power breaker on and off (Ehrengerger col. 1: lines 27-36), wherein the first axis of the drive shaft runs parallel to the second axis of the rotating shaft in a common horizontal plane (Ehrengerger fig. 1 where the axis of “23—drive shaft” runs parallel to the axis of the rotating shaft per fig. 1: “1 – shaft” in a common plane and both axes can be mounted in a

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common horizontal plane dependent on the mounting location).

As to claim 2, Ehrengerger teaches the apparatus as claimed in claim 1, wherein, in the case of multi-pole, switching devices, an electric motor(Ehrengerger fig. 1: “22 – electric motor”) is provided for the purpose of driving all of the switch poles (Ehrengerger fig. 1: “5 – circuit breaker” and “6 – operator” which has switch poles and driven by the electric motor 22).

As to claim 4, Ehrengerger teaches the apparatus as claimed in claim 1, wherein the first axis of the drive shaft runs parallel to the second axis of the rotating shaft(Ehrengerger fig. 1 where the axis of “23—drive shaft” runs parallel to the axis of the rotating shaft per fig. 1: “1 – shaft” in a common plane).

As to claim 6, Ehrengerger teaches the apparatus as claimed in claim 1, wherein the gear mechanism is a lever mechanism (Ehrengerger fig. 1: “25 – shift lever).

As to claim 11, Ehrengerger teaches a switching device having at least one apparatus for actuating purposes (Ehrengerger fig. 1: “5 – circuit breaker” and “6 – operator”) as claimed in claim 1.

As to claim 14, Ehrengerger teaches the apparatus as claimed in claim 13, wherein the gear mechanism is a lever mechanism (Ehrengerger fig. 1: “25 – shift lever).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 5, 9-10, 13, 17-19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,131,776 to Ehrengerger, and in view of USPN 6,841,962 to O'Connor.

As to claims 3, 5, 9-10, 13, 17-19 and 21-22, Ehrengerger teaches an apparatus for actuating an electrical switching device high-voltage power breaker as claimed in claim 1. Ehrengerger does not teach a method of using a servomotor and a toothed belt drive for an actuating apparatus. O'Connor teaches a method of using a servomotor (O'Connor fig. 1: "22 – servomotor") and a toothed belt drive (O'Connor fig. 1: "28 – toothed belt drive) for an actuating apparatus .

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement the teachings of O'Connor into Ehrengerger since Ehrengerger suggests an apparatus for actuating an electrical switching device high-voltage power breaker and O'Connor suggests the beneficial use of a servomotor and a toothed belt drive for an actuating apparatus in the analogous art of motion transfer technology.

The motivation for this comes from the fact that O'Connor teaches a method of using a servomotor (O'Connor fig. 1: "22 – servomotor") and a toothed belt drive (O'Connor fig. 1: "28 – toothed belt drive) for an actuating apparatus and this method can be applied to an actuating device in a circuit breaker.

Furthermore, "The suggestion or motivation to combine references does not have to be stated expressly; rather it may be shown by reference to the prior art itself, to the nature of the problem solved by the claimed invention, or to the knowledge of one of

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ordinary skill in the art. *Medical Instrumentation and Diagnostics Corp v. Elekta AB*, 68 USPQ2d 1263 (Fed. Cir. 2003).

As to claim 3, Ehrengerger teaches the apparatus as claimed in claim 1. It would be obvious for a person of ordinary skill in the art to use a separate electric motor for the purpose of driving each switch pole since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As to claim 5, Ehrengerger in view of O'Connor teaches an apparatus wherein the electric motor is a servomotor (O'Connor fig. 1: "22 – servomotor").

As to claim 9, Ehrengerger in view of O'Connor teaches an apparatus wherein the gear mechanism is in the form of a toothed belt drive (O'Connor fig. 1: "28 – toothed belt drive").

As to claim 10, Ehrengerger in view of O'Connor teaches the apparatus as claimed in claim 9. O'Connor teaches a method of setting up a gear ratio for a toothed belt drive (O'Connor col. 4: lines 41-45). At the time of invention it would be obvious for a person of ordinary skill in the art to identify the range of belt drive ratio since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art". In *re Aller*, 105 USPQ 233.

As to claim 13, Ehrengerger in view of O'Connor teaches an apparatus wherein the electric motor is a servomotor (O'Connor fig. 1: "22 – servomotor").

As to claim 17, Ehrengerger in view of O'Connor teaches the apparatus as

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claimed in claim 2, wherein the gear mechanism is in the form of a toothed belt drive(O'Connor fig. 1: "28 – toothed belt drive).

As to claim 18, it is rejected as the same reason as claim 10.

As to claim 19, Ehrengerger in view of O'Connor teaches a switching device having at least one apparatus for actuating purposes (Ehrengerger fig. 1: "5 – circuit breaker" and "6 – operator") as claimed in claim 18.

As to claim 21, Ehrengerger in view of O'Connor teaches the apparatus as claimed in claim 9. O'Connor teaches a method of setting up a gear ratio for a toothed belt drive (O'Connor col. 4: lines 41-45). At the time of invention it would be obvious for a person of ordinary skill in the art to identify the range of belt drive ratio since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working range involves only routine skill in the art". In re Aller, 105 USPQ 233.

As to claim 22, it is rejected as the same reason as claim 21.

### ***Allowable Subject Matter***

6. Claims 7-8, 15-16, 20 are objected to as being dependent upon the rejected base claim 1, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 4,066,922 to Hennemann discloses an electrical motor control device for a circuit breaker.



***Response to Arguments***

8. Applicant's arguments filed 09/20/2010 with respect to claims 1-11, 13-22 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Luo whose telephone number is (571)270-5251. The examiner can normally be reached on M-F 9AM-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571)272-2227. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David Luo/  
Examiner, Art Unit 2837

/Walter Benson/  
Supervisory Patent Examiner, Art Unit 2837